

IN THE CLAIMS:

Please amend the claims as follows:

1. (Currently amended) A liquid solution in combination with a workpiece having a reflective surface made from a first thermoplastic polymer which softens on heating comprising:

(a) said thermoplastic workpiece having a bulk portion with said reflective surface extending across said bulk portion;

(b) an absorber dye possessing both strong absorption and a high extinction coefficient at a welding wavelength of a radiant energy source, wherein said dye is selected from the group consisting of a visible light absorbing dye, a near infrared absorbing dye, an infrared absorbing dye, and combinations thereof;

(c) a liquid solution containing said dye at a concentration of between 0.01 and 0.0001 grams/ml deposited on or above said workpiece surface via one of liquid dispensing and ink jet printing with said liquid solution having additives to adjust necessary viscosity, surface tension and drying time to provide a substantially laminar welding zone with a defined edge comprising a generally uniform density of about 5 to about 3000 nanograms of dye per mm² thereby rendering said reflective surface weld-enabled, said liquid solution containing a compatible solvent , wherein the solvent residue and said additives are mutually miscible with the reflective surface thereby avoiding photopic occlusion devoid of photopically occluding and heat-sinking additives; and

(d) said laminar welding zone having the capacity to convert inbound radiant energy at said welding wavelength ~~over~~ between about 0.1 J/mm² and 11.4 J/mm² into thermal energy , wherein said additives comprises non heat-sinking additives so that the radiant energy is adapted to weld said reflective surface to a mating thermoplastic workpiece to form an optically fused portion having a 10% greater photopic transmission than the separate workpieces .

Claims 2 - 8 (Cancelled)

9. (Original) The workpiece of claim 1, wherein said liquid solution delivers a portion of said absorber dye below said surface by infusing the dye several molecular layers deep, whereby the laminar welding zone is adapted to provide a melt flow to a depth that encounters said infused dye so that sufficiently small to avoid foaming during welding is avoided.

10 - 24. (Cancelled)

25. (Original) The formulation of claim 24 1, wherein mutual miscibility comprises numerical proximity of the the solvent residue, the additives and the dye have Hansen solubility parameters of said dye, said vehicle, said by products and said reflective surfaces near the Hansen solubility parameters of the workpieces.

26 - 40. (Cancelled)